

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A motor drive apparatus comprising:

a motor current detecting section ~~which detects~~ operable to detect a motor current when a movable member driven by a motor is moved in a first direction;

a lock current judging section ~~which monitors~~ operable to monitor the motor current detected by the motor current detecting section to make a judgment on a lock current that flows ~~is to flow~~ when motion of the movable member is set to a locked state;

a switch operation invalidation setting section operable to invalidate a switch operation when the motor current is the lock current, the switch operation corresponding to moving the movable member in the first direction ~~which, when a judgment that the motor current when the movable member is moved is the lock current is made, invalidates a switch operation in a movement direction of the movable member at a timing of the judgment~~; and

a switch operation invalidation setting canceling section ~~which~~ operable to cancel the invalidation by the switch operation invalidation setting section, said canceling being done when a second switch operation of moving the movable member in an opposite second direction is conducted under a state where said invalidation is done ~~of a switch operation is set by the switch operation invalidation setting section, cancels the setting of switch operation invalidation by the switch operation invalidation setting section.~~

2. (currently amended): A motor drive apparatus comprising:

a motor current detecting section operable to detect ~~which detects~~ a motor current when a movable member driven by a motor is moved in a first direction;

a lock current judging section ~~which monitors~~ operable to monitor the motor current detected by the motor current detecting section to make a judgment on a lock current that ~~is to flow~~ flows when motion of the movable member is set to a locked state;

a switch operation invalidation setting section operable to invalidate a switch operation for a predetermined period when the motor current is the lock current, the switch operation corresponding to moving the movable member in the first direction ~~which, when a judgment that the motor current when the movable member is moved is the lock current is made, invalidates a switch operation of a movement direction of the movable member at a timing of the judgment, only for a predetermined period~~; and

a switch operation invalidation setting canceling section operable to cancel the invalidation by the switch operation invalidation setting section, said canceling being done ~~which, when a switch operation of moving the movable member in an opposite~~ a second direction is conducted under a state where said invalidation is done ~~of a switch operation is set by the switch operation invalidation setting section, cancels the setting of switch operation invalidation by the switch operation invalidation setting section.~~

3. (currently amended): A method of controlling an operation on a movable member driven by a motor, the method comprising ~~the steps of~~:

invalidating a switch operation of moving the movable member in a first direction, said invalidation being done when a motor current ~~in a case where the movable member is moved~~ reaches a lock current corresponding ~~that is to flow when motion of the movable member is set to a locked state, a switch operation in a direction of moving the movable member at this timing;~~ and

canceling the switch operation invalidation setting state by conducting a second switch operation of moving the movable member in ~~an~~ a second ~~opposite~~ direction during said invalidation ~~under a state where the switch operation is invalidated.~~

4. (currently amended): A method of controlling an operation on a movable member driven by a motor, the method ~~comprising the steps of:~~

~~invalidating, when a motor current in a case where the movable member is moved reaches a lock current that is to flow when motion of the movable member is set to a locked state, a switch operation in a~~ first ~~direction of moving the movable member at this timing only for a predetermined period;~~

canceling the switch operation invalidation setting state by conducting a second switch operation of moving the movable member in ~~an~~ a second ~~opposite~~ direction during the predetermined period ~~of invalidating a switch operation;~~ and

invalidating again, when the motor current corresponds to the lock current even at a timing when the predetermined period elapses, a second switch operation in the ~~same~~ second direction only for the predetermined period.